http://www.cas.org/support/stngen/stndoc/properties.html

=>

Uploading C:\Program Files\Stnexp\Queries\10_573529_b.str

0 √1 1 H × 2 2 0 28 - 29 √2 1 - 26 × 28 - 29

chain nodes :

11 12 13 20 22 23 24 25 26 27 28 29 33

ring nodes :

1 2 3 4 5 6 7 8 9 10 14 15 16 17 18 19

chain bonds :

3-11 8-12 12-13 13-14 19-20 20-22 20-33 22-23 22-24 25-26 25-27 28-29

ring bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 4-5 \quad 5-6 \quad 5-7 \quad 6-10 \quad 7-8 \quad 8-9 \quad 9-10 \quad 14-15 \quad 14-19 \quad 15-16 \quad 16-17$

17-18 18-19

exact/norm bonds :

 $1-2 \quad 1-6 \quad 2-3 \quad 3-4 \quad 3-11 \quad 4-5 \quad 8-12 \quad 12-13 \quad 20-33 \quad 22-23 \quad 22-24 \quad 25-27 \quad 28-29$

exact bonds :

13-14 19-20 20-22 25-26

normalized bonds :

5-6 5-7 6-10 7-8 8-9 9-10 14-15 14-19 15-16 16-17 17-18 18-19

G1:0,S,N

G2:[*1],[*2]

Match level :

1:Atom 2:Atom 3:Atom 4:Atom 5:Atom 6:Atom 7:Atom 8:Atom 9:Atom 10:Atom

11:CLASS 12:CLASS 13:CLASS 14:Atom 15:Atom 16:Atom 17:Atom 18:Atom 19:Atom

20:CLASS 22:CLASS

23:CLASS 24:CLASS 25:CLASS 26:CLASS 27:CLASS 28:CLASS 29:CLASS 33:CLASS

L1 STRUCTURE UPLOADED

=> d 11

L1 HAS NO ANSWERS

L1 STR

* STRUCTURE DIAGRAM TOO LARGE FOR DISPLAY - AVAILABLE VIA OFFLINE PRINT *

Structure attributes must be viewed using STN Express query preparation.

=> s l1 sss full

FULL SEARCH INITIATED 16:58:25 FILE 'REGISTRY'
FULL SCREEN SEARCH COMPLETED - 65 TO ITERATE

100.0% PROCESSED 65 ITERATIONS 61 ANSWERS

SEARCH TIME: 00.00.01

L2 61 SEA SSS FUL L1

=> file caplus

COST IN U.S. DOLLARS
SINCE FILE TOTAL
ENTRY SESSION
FULL ESTIMATED COST
178.82
179.03

FILE 'CAPLUS' ENTERED AT 16:58:56 ON 21 FEB 2008
USE IS SUBJECT TO THE TERMS OF YOUR STN CUSTOMER AGREEMENT.
PLEASE SEE "HELP USAGETERMS" FOR DETAILS.
COPYRIGHT (C) 2008 AMERICAN CHEMICAL SOCIETY (ACS)

Copyright of the articles to which records in this database refer is held by the publishers listed in the PUBLISHER (PB) field (available for records published or updated in Chemical Abstracts after December 26, 1996), unless otherwise indicated in the original publications. The CA Lexicon is the copyrighted intellectual property of the American Chemical Society and is provided to assist you in searching databases on STN. Any dissemination, distribution, copying, or storing of this information, without the prior written consent of CAS, is strictly prohibited.

FILE COVERS 1907 - 21 Feb 2008 VOL 148 ISS 8 FILE LAST UPDATED: 20 Feb 2008 (20080220/ED)

Effective October 17, 2005, revised CAS Information Use Policies apply. They are available for your review at:

http://www.cas.org/infopolicy.html

=> s 12

L3 3 L2

=> d his

(FILE 'HOME' ENTERED AT 16:57:42 ON 21 FEB 2008)

FILE 'REGISTRY' ENTERED AT 16:57:53 ON 21 FEB 2008

L1 STRUCTURE UPLOADED

L2 61 S L1 SSS FULL

FILE 'CAPLUS' ENTERED AT 16:58:56 ON 21 FEB 2008

L3 3 S L2

=> s 12

L4 3 L2

=> d 14 ibib abs tot

L4 ANSWER 1 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2006:1253707 HCAPLUS Full-text

DOCUMENT NUMBER: 146:81767

TITLE: Preparation of coumarin derivatives for preventing

diseases and pests in crop plants

INVENTOR(S): Liu, Changling; Li, Miao; Guan, Aiying; Zhang, Hong;

Li, Zhinian; Ye, Tianjiang

PATENT ASSIGNEE(S): Shenyang Research Institute of Chemical Industry,

China, Peop. Rep. China

SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 15pp.

CODEN: CNXXEV

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|---------------|---------------------|----------|
| | | | | |
| CN 1869032 | A | 20061129 | CN 2005-10046514 | 20050526 |
| PRIORITY APPLN. INFO.: | | | CN 2005-10046514 | 20050526 |
| OTHER SOURCE(S). | CASREZ | CT 146 · 8176 | 7. MARPAT 146.81767 | |

OTHER SOURCE(S): CASREACT 146:81767; MARPAT 146:81767

GΙ

$$\bigcap_{R^{1}}\bigcap_{R^{2}}\bigcap_{N}\bigcap_{Me}\bigcap_{Me}\bigcap_{Me}\bigcap_{N}\bigcap_{OMe}\bigcap_{R}\bigcap_{N}\bigcap_{OMe}\bigcap_{N}\bigcap_{Me}\bigcap_{N}\bigcap_{OMe}\bigcap_{OMe}\bigcap_{N}\bigcap_{OMe}\bigcap_{N}\bigcap_{OMe}\bigcap_{N}\bigcap_{OMe}\bigcap_{OMe}\bigcap_{N}\bigcap_{OMe}\bigcap_{OMe}\bigcap_{N}\bigcap_{OMe$$

The title coumarin compds. I [wherein Q = MeO-CO-C(-)=CHOMe, MeO-CO-C(-)=NOMe, MeNH-CO-C(-)=NOMe, or MeO-CO-N(-)OMe; R1 = H or C1; R2 = substituted pyridyl; or R1+R2 = (CH2)3 or (CH2)4; and R3 = H, halogen, CN, nitro, alkyl, alkenyl, alkynyl, haloalkyl, alkoxy, etc.] and stereoisomers thereof are prepared as pesticides. For example, the patent disclosed the preparation of the compound II. The coumarin compds. have excellent bactericidal activity and systemic activity, and can be used to prevent diseases in crop plants such as Plasmopara viticola, Thanatephorus cucumeris, Pyricularia grisea, Alternaria solani, Phytophthora infestans, Erysiphe cichoracearum, Pseudoperonospora cubensis, Botrytis cinerea, Puccinia, Mycosphaerella tassiana, and Erysiphe graminis. Meanwhile, the coumarin compds. have excellent pesticidal activity, and can be used to prevent pests from crop plants, such as Mythimna separata, Plutella xylostella, Myzus persicae, Tetranychus cinnabarinus, Tetranychus urticae, Henosepilachna sparse, Tetranychus truncates, and Culex pipieus.

L4 ANSWER 2 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:429410 HCAPLUS Full-text

DOCUMENT NUMBER: 142:430138

TITLE: Preparation of benzopyrone derivatives as pesticides

and bactericides

INVENTOR(S): Liu, Changling; Guan, Aiying; Zhang, Hong; Zhang,

Mingxing; Li, Zhengming; Li, Miao; Li, Lin; Li,

Zhinian; Hou, Chunqing

PATENT ASSIGNEE(S): Shenyang Research Institute of Chemical Industry,

Peop. Rep. China

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

GΙ

| PA' | PATENT NO. | | | | KIN | D | DATE | | APPLICATION NO. | | | | | | DATE | | | |
|---------|------------|------|------|-----|------|-----|------|------|---------------------------|------|--------|------|------|-----|----------|--------------|-----|--|
| WO | 2005 | 0448 | 13 | | | | | | WO 2004-CN1255 | | | | | | | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | ΑU, | ΑZ, | ΒA, | BB, | BG, | BR, | BW, | BY, | ΒZ, | CA, | CH, | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | EG, | ES, | FΙ, | GB, | GD, | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KP, | KR, | KΖ, | LC, | |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NA, | ΝI, | |
| | | NO, | NZ, | OM, | PG, | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | SY, | |
| | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | |
| | RW: | BW, | GH, | GM, | ΚE, | LS, | MW, | MZ, | NΑ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | ΑM, | |
| | | ΑZ, | BY, | KG, | KΖ, | MD, | RU, | ΤJ, | TM, | ΑT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | |
| | | EE, | ES, | FI, | FR, | GB, | GR, | HU, | ΙE, | IS, | IT, | LU, | MC, | NL, | PL, | PT, | RO, | |
| | | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI, | CM, | GΑ, | GN, | GQ, | GW, | $	ext{ML}$, | MR, | |
| | | ΝE, | SN, | TD, | ΤG | | | | | | | | | | | | | |
| CN | CN 1616448 | | | | Α | | 2005 | 0518 | CN 2003-10105079 20031113 | | | | | | | | 111 | |
| EP | 1683 | 792 | | | A1 | | 2006 | 0726 | EP 2004-797287 | | | | | | 20041104 | | | |
| | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, | |
| | | ΙE, | SI, | FΙ, | RO, | CY, | TR, | BG, | CZ, | EE, | HU, | PL, | SK, | IS | | | | |
| | 1823 | | | | | | | | | CN 2 | 2004- | 8002 | 0125 | | 2 | 0041 | 104 | |
| | 2007 | | | | | | | | | | 2006- | | | | | 0041 | 104 | |
| US | 2007 | 0378 | 76 | | A1 | | 2007 | 0215 | | | | | | | | 0060 | 324 | |
| PRIORIT | Y APP | LN. | INFO | .: | | | | | | CN 2 | 2003- | 1010 | 5079 | | A 2 | 0031 | 111 | |
| | | | | | | | | | | WO 2 | 2004-0 | CN12 | 55 | | W 2 | 0041 | 104 | |
| OTHER S | OURCE | (S): | | | MAR: | PAT | 142: | 4301 | 38 | | | | | | | | | |

AB The title compds. I [wherein A = CH or N; B = O, S, NH, or alkylamino; R1 and R2 = independently H, alkyl, or haloalkyl; R3 = H, alkyl, haloalkyl, or alkoxy; R4-R8 = independently H, halo, CN, etc.] or isomers thereof are prepared as pesticides and/or bactericides. For example, the compound II was

prepared from 7-hydroxybenzopyran-2-one and (E)-2-[2-(bromomethyl)phenyl]-3-methoxypropenoic acid Me ester (76.5%). I are suitable for prevention or cure of the following plant diseases: grape downy mildew, rice blast, tomato early blight, tomato late blight, wheat rust disease, wheat leaf spot, wheat powdery mildew, cucumber powdery mildew, cucumber downy mildew, cucumber botrytis, and so on. For example, II showed 100% effect on cucumber powdery mildew at 200 ppm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 3 OF 3 HCAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 1993:59429 HCAPLUS Full-text

DOCUMENT NUMBER: 118:59429

TITLE: Preparation of (alkoxyimino)benzeneacetamide

derivatives as agrochemical fungicides

INVENTOR(S): Hayase, Yoshio; Takenaka, Hideyuki; Masuko, Michio

PATENT ASSIGNEE(S): Shionogi and Co., Ltd., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 13 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|--------|-----------|-----------------|----------|
| JP 04182461 | А | 19920630 | JP 1990-312519 | 19901116 |
| JP 2897789 | B2 | 19920630 | JP 1990-312319 | 19901110 |
| PRIORITY APPLN. INFO.: | 22 | 13330001 | JP 1990-312519 | 19901116 |
| OTHER SOURCE(S): | MARPAT | 118:59429 | | |
| GI | | | | |

AB The title compds. [I; R1, R2 = H, alkyl; R3 = alkyl; A = mono- or bicyclic aryl or heteroaryl containing ≥1 alkyl, alkenyl, alkynyl, alkoxy, halo, haloalkyl, etc.; B = CH2, bond] are prepared Stirring 1.5 g ester II (R = MeO) and a solution of MeNH2 in MeOH at room temperature gave 1.05 g amide II (R = MeNH), which (200 mg) was stirred with a suspension of 60% NaH in THF at room temperature and then with 234 mg pyridine derivative III to give 330 mg amide IV. IV controlled 97% Pyricularia oryzae, 90% Rhizoctonia solani, and 100% Sphaerotheca fuliginea at 500 ppm.

http://www.cas.org/infopolicy.html => s liu, C?/au 24592 LIU, C?/AU => s guan, a?/au 56 GUAN, A?/AU => s zhang, h?/au 38000 ZHANG, H?/AU => s zhang, m?/au 14910 ZHANG, M?/AU => s li, z?/au 37097 LI, Z?/AU => s li, M?/au 17222 LI, M?/AU => s li, l?/au 26609 LI, L?/AU L10 => s li, z?/au 37097 LI, Z?/AU L11 => s hou, c?/au 1522 HOU, C?/AU => s (14 or 15 or 16 or 17 or 18 or 19 or 110 or 111 or 112) and (benzopyrone or coumarine) 572 BENZOPYRONE 210 BENZOPYRONES 699 BENZOPYRONE (BENZOPYRONE OR BENZOPYRONES) 111 COUMARINE 37 COUMARINES 145 COUMARINE (COUMARINE OR COUMARINES) L13 1 (L4 OR L5 OR L6 OR L7 OR L8 OR L9 OR L10 OR L11 OR L12) AND (BEN ZOPYRONE OR COUMARINE)

=> d ibib abs tot

INVENTOR(S):

L13 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2008 ACS on STN ACCESSION NUMBER: 2005:429410 CAPLUS Full-text

DOCUMENT NUMBER: 142:430138

TITLE: Preparation of benzopyrone derivatives as

Liu, Changling; Guan, Aiying; Zhang, Hong; Zhang, Mingxing; Li, Zhengming; Li, Miao; Li, Lin; Li, Zhinian; Hou, Chunqing

pesticides and bactericides

PATENT ASSIGNEE(S): Shenyang Research Institute of Chemical Industry,

Peop. Rep. China

SOURCE: PCT Int. Appl., 37 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: Chinese

FAMILY ACC. NUM. COUNT: 1 PATENT INFORMATION:

| PA' | PATENT NO. | | | | KIN | D | DATE | | APPLICATION NO. | | | | | | DATE | | | | |
|------------------|--------------|------|------|-----|------|--------------|-----------------------------|------|-----------------|----------------|--------|------|------|-----|------|----------|-----|--|--|
| WO | 2005 | 0448 | 13 | | A1 | A1 20050519 | | | | WO 2004-CN1255 | | | | | | 20041104 | | | |
| | W: | ΑE, | AG, | AL, | AM, | ΑT, | AU, | AΖ, | ΒA, | BB | , BG, | BR, | BW, | BY, | ΒZ, | CA, | CH, | | |
| | | CN, | CO, | CR, | CU, | CZ, | DE, | DK, | DM, | DΖ | , EC, | EE, | EG, | ES, | FΙ, | GB, | GD, | | |
| | | GE, | GH, | GM, | HR, | HU, | ID, | IL, | IN, | IS | , JP, | KΕ, | KG, | KΡ, | KR, | KΖ, | LC, | | |
| | | LK, | LR, | LS, | LT, | LU, | LV, | MA, | MD, | MG | , MK, | MN, | MW, | MX, | MZ, | NA, | NΙ, | | |
| | | NO, | NΖ, | OM, | PG, | PH, | PL, | PT, | RO, | RU | , SC, | SD, | SE, | SG, | SK, | SL, | SY, | | |
| | | ΤJ, | TM, | TN, | TR, | TT, | TZ, | UA, | UG, | US | , UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | |
| | RW: | BW, | GH, | GM, | KΕ, | LS, | MW, | MZ, | NA, | SD | , SL, | SZ, | TZ, | UG, | ZM, | ZW, | ΑM, | | |
| | | ΑZ, | BY, | KG, | KΖ, | MD, | RU, | ТJ, | TM, | ΑT | , BE, | BG, | CH, | CY, | CZ, | DE, | DK, | | |
| | | EE, | ES, | FΙ, | FR, | GB, | GR, | HU, | ΙE, | IS | , IT, | LU, | MC, | NL, | PL, | PT, | RO, | | |
| | | SE, | SI, | SK, | TR, | BF, | ВJ, | CF, | CG, | CI | , CM, | GΑ, | GN, | GQ, | GW, | ML, | MR, | | |
| | | ΝE, | SN, | TD, | ΤG | | | | | | | | | | | | | | |
| CN | CN 1616448 A | | | | 2005 | 0518 | 8 CN 2003-10105079 20031111 | | | | | | | 111 | | | | | |
| EP | 1683 | 792 | | | A1 | | 2006 | 0726 | | EΡ | 2004- | 7972 | 87 | | 2 | 0041 | 104 | | |
| | R: | ΑT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR | i, IT, | LI, | LU, | NL, | SE, | MC, | PT, | | |
| | | ΙE, | SI, | FΙ, | RO, | CY, | TR, | BG, | CZ, | EE | , HU, | PL, | SK, | IS | | | | | |
| CN | 1823 | 052 | | | Α | | 2006 | 0823 | | CN | 2004- | 8002 | 0125 | | 2 | 0041 | 104 | | |
| JP | 2007 | 5106 | 74 | | Τ | | 2007 | 0426 | | JΡ | 2006- | 5386 | 36 | | 2 | 0041 | 104 | | |
| US | 2007 | 0378 | 76 | | A1 | | 2007 | 0215 | | US | 2006- | 5735 | 29 | | 2 | 0060 | 324 | | |
| PRIORIT | Y APP | LN. | INFO | .: | | | | | | CN | 2003- | 1010 | 5079 | | A 2 | 0031 | 111 | | |
| | | | | | | | | | | WO | 2004- | CN12 | 55 | , | W 2 | 0041 | 104 | | |
| OTHER SOURCE(S): | | | | MAR | PAT | T 142:430138 | | | | | | | | | | | | | |

GΙ

The title compds. I [wherein A = CH or N; B = O, S, NH, or alkylamino; R1 and AΒ R2 = independently H, alkyl, or haloalkyl; R3 = H, alkyl, haloalkyl, or alkoxy; R4-R8 = independently H, halo, CN, etc.] or isomers thereof are prepared as pesticides and/or bactericides. For example, the compound II was prepared from 7-hydroxybenzopyran-2-one and (E)-2-[2-(bromomethyl)phenyl]-3methoxypropenoic acid Me ester (76.5%). I are suitable for prevention or cure of the following plant diseases: grape downy mildew, rice blast, tomato early blight, tomato late blight, wheat rust disease, wheat leaf spot, wheat powdery mildew, cucumber powdery mildew, cucumber downy mildew, cucumber botrytis, and so on. For example, II showed 100% effect on cucumber powdery mildew at 200 ppm.

REFERENCE COUNT: 3 THERE ARE 3 CITED REFERENCES AVAILABLE FOR THIS